1   1.   A near object detection system comprising:

2   a plurality of sensors, each of the sensors for providing detection coverage in a

3   predetermined coverage zone and each of the sensors comprising:

4   a transmit antenna for transmitting a first RF signal;

5   a receive antenna for receiving a second RF signal; and

6   a receiver circuit, coupled to said received antenna; and

7   means for sharing information between each of the plurality of sensors.

2.   The system of claim 1 wherein said means for sharing information between each of the

2   plurality of sensors comprises a central sensor processor coupled to each of said plurality

3   of sensors.

1   3.   The system of claim 1 wherein said means for sharing information between each of the

2   plurality of sensors comprises:

3   a sensor processor disposed in each of said sensor circuits; and

4   communication means for allowing information to be shared between the sensor

5   processors.

1   4.   A near object detection system for a vehicle, comprising:

2   a plurality of sensors, each of the sensors for providing detection coverage in

3   respective coverage zones disposed about a perimeter of the vehicle,

4   wherein each of the sensors has a predetermined range, angular extent, and velocity

5   range based upon respective coverage zone requirements.

1   5.   The system according to claim 4, wherein the coverage zones include two of more of

2   adaptive cruise control/night vision zone, lane keeping zone, road departure zone, side object

3   detection zone, backup and parking aid zone, and stop and go zone.

1   6.   A near object detection system, comprising:

2   a plurality of sensors, each of the sensors for providing detection coverage in a

3   predetermined coverage zone;

4   a multiple hypothesis tracker for processing data from the plurality of sensors to make

5   a hypothesis about data association, resolution, and/or data quality;

6   a prediction filter coupled to the multiple hypothesis tracker for scheduling the

7   plurality of sensors;

8   a public track former including a discrimination processor for generating data to

9   control operation of the plurality of sensors;

10   an estimator/best state vector subsystem coupled to the public track former; and

11   a vehicle control crash management interface coupled to the estimator/best state

12   vector subsystem and to the discrimination processor.